

Supplementary Appendix for “Traceability and Mass Policy Feedback Effects”

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May 5, 2024

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A14 Effect of the WPA and PWA Spending on Retail Sales and Farm Values 24

Figure A1: Example of WPA Form 402

WPA Form 402
Revised 5-15-36

NOTICE TO REPORT FOR WORK ON PROJECT B A

Name Province, William Frank Identification No. 1885-518
 Address 523 Salina, Kans Case No. 919 Date Feb. 17, 1937
Washington Ave Kansas Sex M Race Certified Noncertified
 Transfer—Yes No From Project No. 4097 to Project No. 5293
 Additional information Age 62 Foreman: Fred Warnow

You are asked to report ready for work at 8:00 A. M. P. M. on Thursday, 2-18-37
 at Walnut Ave. Road (Exact place to report) with (Day of work and date)
 as Laborer (Title of occupation) on 5293 (Employment card or Project number)
 Wage class Unskilled (Rate of compensation)
 Location of project Walnut Ave. Salina County (City or village, State, street number, building or other exact location)

Signature of placement officer Luther O. Williams

5

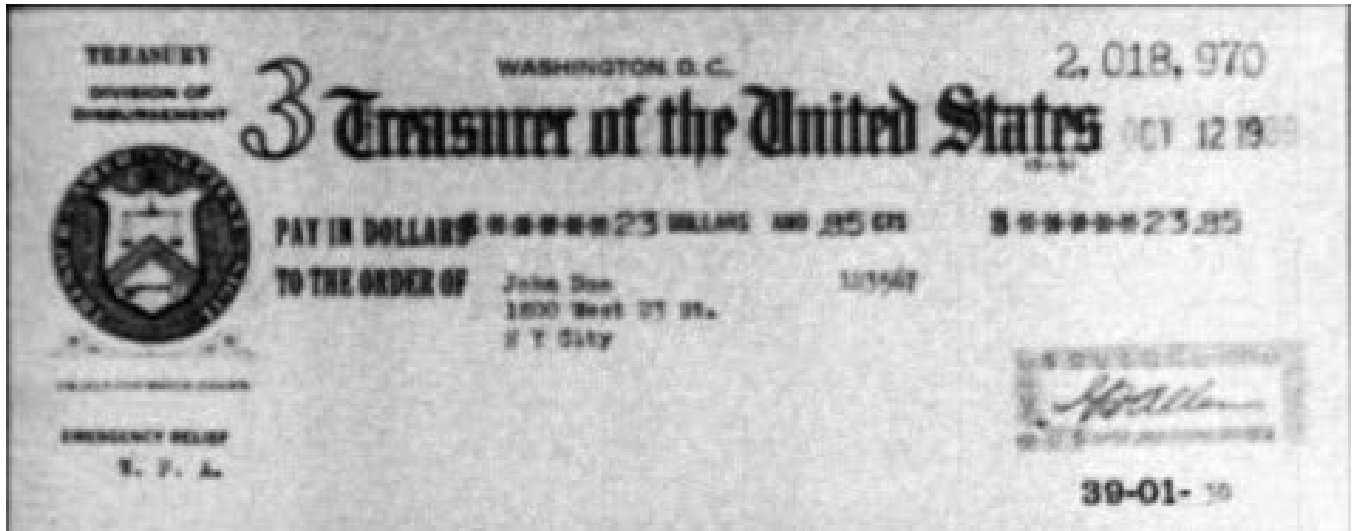
TO WORKER

(Penalties are provided for illegal signature, transfer, or use of this form)
 I HEREBY CERTIFY that I am the person named above as employee:
 Employee's signature William Frank Province
 Date employee begins work 2-18-1937
 Foreman's signature Fred Warnow

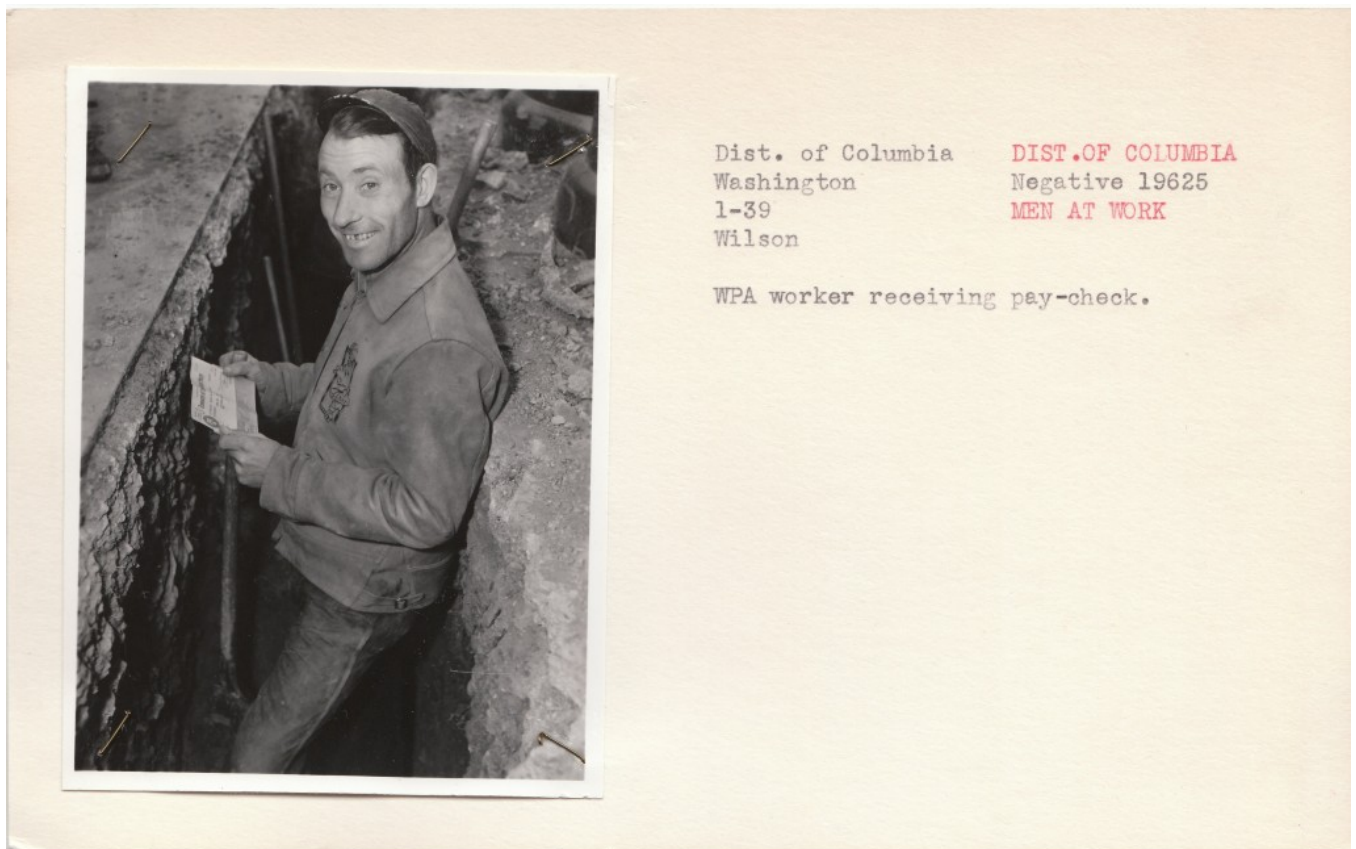
U. S. GOVERNMENT PRINTING OFFICE

Note: <https://www.ggarchives.com/WPA/Reference/WPAForm402-ReassignmentSlips-1936.html>

Figure A2: Example of WPA Paycheck



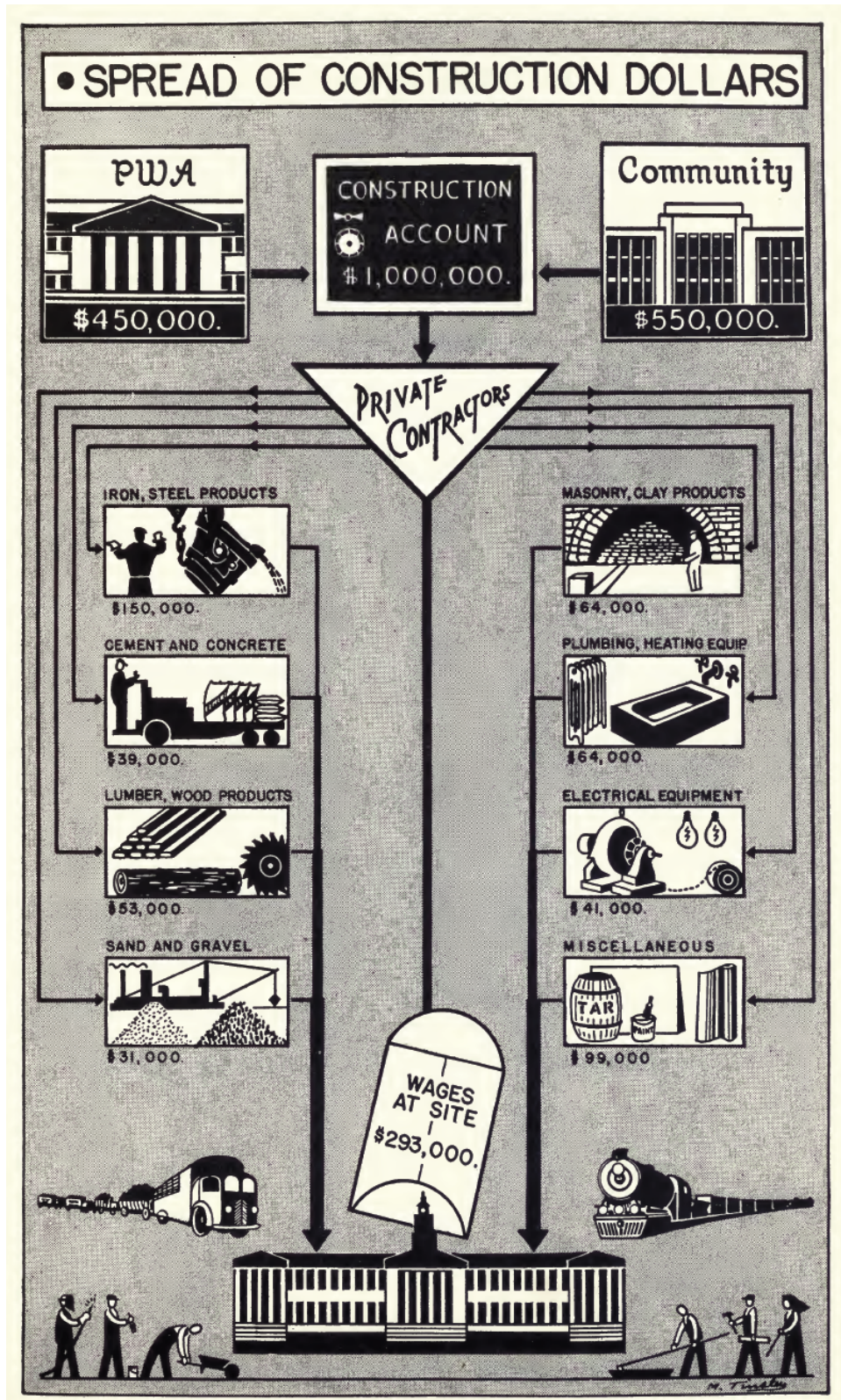
(a) Paycheck



(b) Employee Receiving Check

Note: <https://www.gettyimages.com/detail/video/government-check-made-out-to-john-doe-wpa-employees-news-169581125?adppopup=true>; <https://livingnewdeal.org/new-deal-smiles/dc-133/>

Figure A3: PWA Policy Design Infographic



Note: From Public Works Administration. 1939. *America Builds: The Record of the PWA*. Washington, DC: U.S. Government Printing Office. Page 29.

Figure A4: Example of New Deal Spending Data Report: Cook County, IL

<u>COOK</u> County, <u>ILLINOIS</u>		(16)	
March 4, 1933 through June 30, 1939			
	<u>LOANS</u>	<u>Number</u>	<u>Amount</u>
<u>Current Programs</u>			
1. Reconstruction Finance Corp. (From Feb. 2, 1932)		1.	\$256,015,152
2. Farm Credit Admin. - - Land Bank Commissioner	87	2.	250,100 2/
3. Farm Credit Admin. - - Emergency Crop and Feed	148	3.	13,780 2/
4. Farm Security Admin. - - Rural Rehabilitation		4.	27,925
5. Farm Security Admin. - - Farm Tenant Purchase		5.	---
6. Public Works Admin. - - Non-Federal projects		6.	52,674,442 3/
7. U.S. Housing Authority - Loan Contracts Signed	1,708 Units	7.	8,674,000
8. Rural Electrification Admin. - (Total project cost divided by No. of counties participating)		8.	---
9. Disaster Loan Corporation	4	9.	1,400
<u>Completed Programs</u>			
10. Farm Credit Admin. - 1934-1935 Drought Relief	1	10.	50
11. Home Owners' Loan Corporation - - - 1933-1936	45,984	11.	212,716,567
			<u>\$ 530,373,416</u>
<u>EXPENDITURES</u>			
<u>Current Programs</u>			
1. A.A.A. Conservation Programs			
1936	\$ 62,501		
1937	43,900	1.	\$ 106,401
2. Farm Security Admin. - - Rural Rehabilitation		2.	10,655
3. Public Works Admin. - - Non-Federal projects		3.	75,130,850
4. Public Works Admin. - - - - Federal projects		4.	5,758,160
5. U.S.H.A. - Housing (Former PWA Housing only) (4)2414 Units		5.	15,425,656
6. Public Buildings Admin. - - Federal buildings		6.	6,352,777
7. Public Roads Admin. - - - Completed projects		7.	13,656,974
8. Work Projects Administration		8.	273,705,121
9. Other Projects under Works Program	7	9.	660,674
10. Social Security Board			
Old Age Assistance	\$13,163,944	44,415	
Aid to the Blind	---		
Aid to Dependent Children	---	10.	13,163,944
<u>Completed Programs</u>			
11. Federal Emergency Relief Administration		11.	156,770,075
12. Civil Works Administration		12.	33,235,984
13. A.A.A. Rental and Benefit Payments		13.	186,159
			<u>\$594,163,430</u>
			<u>\$1,124,536,846</u>

Figure A5: Example of PWA Project Report in California

REPORT NO. 5 STATUS OF COMPLETED NON-FEDERAL ALLOTTED PROJECTS REGION NO. 6 CALIFORNIA. Table with columns: DOCKET NUMBER, LOCATION, TYPE OF PROJECT, ALLOTMENT (LOAN, GRANT, TOTAL), TOTAL ESTIMATED PROJECT COST, DATE ALLOTMENT APPROVED, AGREEMENT OR OFFER (SENT, ACCEPTED, etc.), BIDS ADVERTISED, CONTRACTS AWARDED, FIRST CONTRACT AWARDED, CONSTRUCTION STARTED, REPORTED PROJECT COSTS TO DATE, CONSTRUCTION COMPLETED.

DATE January 3, 1940

FEDERAL EMERGENCY ADMINISTRATION OF PUBLIC WORKS PROJECTS DIVISION

PAGE NO. 194

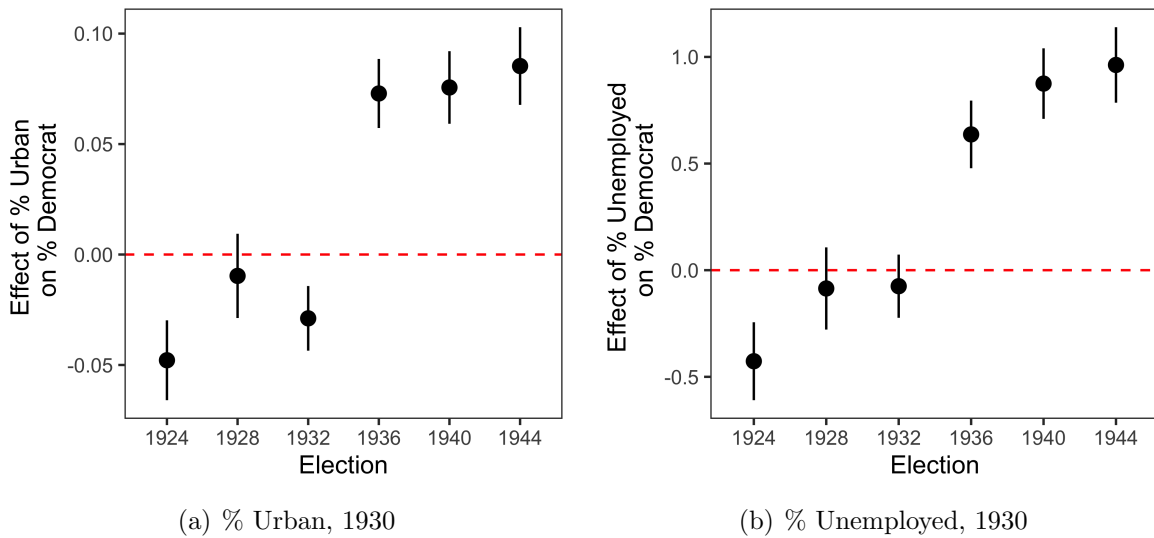
Figure A6: Example of CA WPA School Construction Project

25409		331264	7767	3-26-38	\$74,204	465-03-2-471
DPO 10-5203		REGISTRY NO.	LETTER NO.	PRES. APP. DATE	O. P. AMOUNT	O. P. NUMBER
STATE NUMBER		So. Calif.	991	019	(BREAKDOWN)	(LOCATION)
LIMITATION		4	Puente	Los Angeles		
ACTION		DUR. MO.	CITY	COUNTY	TYPE	
WPA app.		B				
\$74,204		1	DESCRIPTION 965 Hudson School District			
3-18-38		Construct new school building, including electrical, plumbing, and other necessary facilities, and perform appurtenant and incidental work. The project also includes demolishing existing unsound and condemned buildings. The work will be performed at Glendora and College Streets in the community of Puente, Los Angeles County. In addition to projects specifically approved. School District owned property.				
WARRANT NUMBER		fg				
DATE COMPT-GEN. APP.		100,429	89-93	13	1937	
SUPPLEMENT		FEDERAL MAN-HOURS	% FEDERAL LABOR TO TOTAL F. F.	% SPONSORS FUNDS TO TOTAL COST		
1	6	81	80	242	\$922	\$85,099
2	7	TOTAL M-Y	FEDERAL M-Y	AVE. EMPL.	M-Y COST F. F.	TOTAL ALL FUNDS
3	8	\$69,376	\$4,828	\$74,204	\$800	\$10,895
4	9	LABOR	OTHER	TOTAL	LABOR	TOTAL
5	10	FEDERAL CONTRIBUTION			SPONSORS FUNDS	

6

Note: <https://catalog.archives.gov/id/231987465?objectPage=5>

Figure A7: **Time-Varying Effects of County Demographic Predictors of % Democrat**



Note: A7(a) and A7(b) plot the correlation between county % urban and county % unemployed as measured in 1930, respectively, and county Democratic voting in each election year from 1924 through 1944. Bars are 95% confidence intervals. Models include state fixed effects. Coefficients and model diagnostics are also presented in Tables A1 and A2 of the Dataverse Supplementary Appendix.

Table A1: **Correlations Between County Demographics and WPA/PWA Spending**

	Correlation
WPA	
% Urban	0.277
% Black	-0.372
% Foreign	0.254
% Unemployed	0.393
PWA	
% Urban	0.324
% Black	-0.119
% Foreign	0.227
% Unemployed	0.220

Note: Entries are Pearson correlation coefficient's.

Table A2: Effect of WPA and PWA Spending on Democratic Voting: South vs. Non-South

	<i>DV: Democratic Vote Share (0-100)</i>					
	(1)	(2)	(3)	(4)	(5)	(6)
ln(WPA)	0.602*			0.407		
	(0.270)			(0.320)		
ln(WPA) × South	0.244			0.603		
	(0.605)			(0.602)		
ln(PWA)		-0.085			0.043	
		(0.126)			(0.142)	
ln(PWA) × South		0.321			0.221	
		(0.253)			(0.236)	
ln(PWA On-Site)			-0.095			0.053
			(0.158)			(0.176)
ln(PWA On-Site) × South			0.421			0.318
			(0.331)			(0.302)
County FE	✓	✓	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓	✓	✓
Observations	24,403	24,403	24,403	12,264	12,264	12,264
R ²	0.963	0.963	0.963	0.979	0.979	0.979

Notes: Standard errors are clustered by county. *p<0.05

Table A3: **Effect of Above Average WPA and PWA Spending on Democratic Voting**

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
Above Average WPA	0.679* (0.314)		0.516 (0.329)	
Above Average PWA		0.257 (0.369)		0.426 (0.405)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.963	0.963	0.979	0.979

Notes: Standard errors are clustered by county. *p<0.05

Table A4: **Effect of WPA and PWA Spending Quintiles on Democratic Voting**

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
WPA Q2 × Post	-0.098 (0.479)		0.218 (0.485)	
WPA Q3 × Post	0.249 (0.488)		0.773 (0.504)	
WPA Q4 × Post	0.383 (0.514)		0.778 (0.516)	
WPA Q5 × Post	1.349* (0.570)		1.292* (0.611)	
PWA Q2 × Post		-0.379 (0.365)		-0.095 (0.379)
PWA Q3 × Post		0.083 (0.402)		0.341 (0.410)
PWA Q4 × Post		0.154 (0.416)		0.348 (0.423)
PWA Q5 × Post		0.308 (0.453)		0.643 (0.481)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.963	0.963	0.979	0.979

Notes: Standard errors are clustered by county. *p<0.05

Table A5: **Effect of WPA and PWA Projects on Democratic Voting in CA**

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
ln(WPA)	1.557 (1.145)		2.050** (0.751)	
ln(PWA)		0.166 (1.029)		0.670 (0.843)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	464	464	232	232
R ²	0.968	0.967	0.947	0.943

Notes: Standard errors are clustered by county. **p<0.01

Table A6: **Effect of WPA and PWA Spending on Democratic Voting by % Urban**

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
ln(WPA)	0.623** (0.218)		0.313 (0.228)	
ln(WPA) × % Urban	0.022*** (0.001)		0.027*** (0.001)	
ln(PWA)		-0.238* (0.112)		-0.215+ (0.116)
ln(PWA) × % Urban		0.027*** (0.002)		0.031*** (0.002)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.938	0.938	0.967	0.966

Notes: Standard errors are clustered by county. +p<0.10; *p<0.05; **p<0.01; ***p<0.001

Table A7: Effect of WPA and PWA Spending on Democratic Voting by % Unemployed

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
ln(WPA)	0.188 (0.243)		0.041 (0.255)	
ln(WPA) × % Unemployed	0.199*** (0.017)		0.207*** (0.018)	
ln(PWA)		-0.551*** (0.135)		-0.416** (0.137)
ln(PWA) × % Unemployed		0.266*** (0.021)		0.268*** (0.024)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.938	0.937	0.966	0.966

Notes: Standard errors are clustered by county. **p<0.01; ***p<0.001

Table A8: **Effect of WPA and PWA Spending on Democratic Voting by % Foreign Born**

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
ln(WPA)	0.602** (0.209)		0.879*** (0.220)	
ln(WPA) × % Foreign	0.129*** (0.009)		0.084*** (0.011)	
ln(PWA)		-0.225* (0.113)		0.126 (0.116)
ln(PWA) × % Foreign		0.126*** (0.014)		0.092*** (0.015)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.938	0.937	0.965	0.965

Notes: Standard errors are clustered by county. *p<0.05; **p<0.01; ***p<0.001

Table A9: Effect of WPA and PWA Spending on Democratic Voting by % Black

	<i>DV: Democratic Vote Share (0-100)</i>			
	1916-1944		1932-1944	
	(1)	(2)	(3)	(4)
ln(WPA)	1.675*** (0.209)		1.508*** (0.221)	
ln(WPA) × % Black	0.004 (0.004)		0.031*** (0.003)	
ln(PWA)		0.529*** (0.114)		0.494*** (0.115)
ln(PWA) × % Black		0.002 (0.004)		0.019*** (0.004)
County FE	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓
Observations	24,403	24,403	12,264	12,264
R ²	0.936	0.936	0.965	0.965

Notes: Standard errors are clustered by county. ***p<0.001

Table A10: **Effect of Disapproved WPA Spending on Democratic Voting**

	<i>DV: Democratic Vote Share (0-100)</i>	
	1916-1944	1932-1944
	(1)	(2)
ln(Disapproved WPA)	0.192 (0.619)	0.335 (0.681)
County FE	✓	✓
State-Year FE	✓	✓
Demographic FE	✓	✓
Observations	464	232
R ²	0.967	0.943

Notes: Standard errors are clustered by county.

Table A11: **Effect of WPA Spending on Ballots Cast**

	<i>DV: ln(Ballots Cast)</i>	
	1916-1944	1932-1944
	(1)	(2)
ln(WPA)	-0.005 (0.010)	0.009 (0.008)
County FE	✓	✓
State-Year FE	✓	✓
Demographic FE	✓	✓
Observations	24,400	12,264
R ²	0.989	0.996

Notes: Standard errors are clustered by county.

Table A12: Effect of WPA and PWA Spending on Democratic Voting in Gubernatorial Elections, 1916-1944

	<i>DV: Democratic Vote Share (0-100)</i>					
	(1)	(2)	(3)	(4)	(5)	(6)
ln(WPA)	0.815*** (0.236)	0.609* (0.255)				
ln(WPA) × GOP		0.789* (0.328)				
ln(PWA)			0.105 (0.118)	0.178 (0.122)		
ln(PWA) × GOP				-0.326+ (0.167)		
ln(PWA On-Site)					0.137 (0.148)	0.219 (0.155)
ln(PWA On-Site) × GOP						-0.368+ (0.206)
County FE	✓	✓	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓	✓	✓
Demographic FE	✓	✓	✓	✓	✓	✓
Observations	32,760	32,760	32,760	32,760	32,760	32,760
R ²	0.963	0.963	0.963	0.963	0.963	0.963

Notes: Standard errors are clustered by county. +p<0.10; *p<0.05; ***p<0.001

Table A13: **Effect of WPA and PWA Spending on Democratic Voting in Gubernatorial Elections: South vs. Non-South, 1916-1944**

	<i>DV: Democratic Vote Share (0-100)</i>		
	(1)	(2)	(3)
ln(WPA)	1.175*** (0.292)		
ln(WPA) × South	-0.922+ (0.482)		
ln(PWA)		-0.127 (0.151)	
ln(PWA) × South		0.560* (0.239)	
ln(PWA On-Site)			-0.129 (0.188)
ln(PWA On-Site) × South			0.656* (0.304)
County FE	✓	✓	✓
State-Year FE	✓	✓	✓
Demographic FE	✓	✓	✓
Observations	32,760	32,760	32,760
R ²	0.963	0.963	0.963

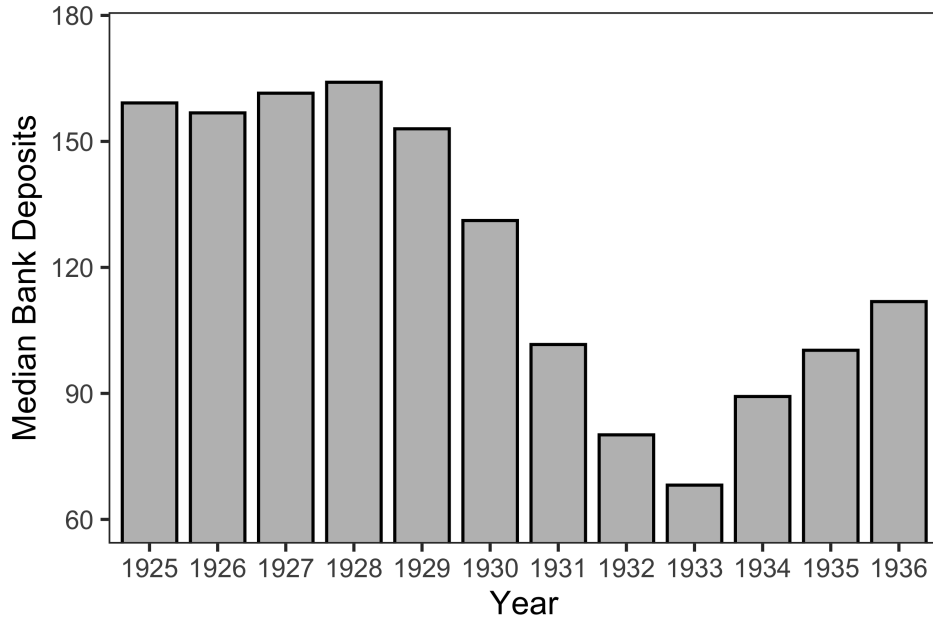
Notes: Standard errors are clustered by county. +p<0.10; *p<0.05; ***p<0.001

Figure A8: Example of Disapproved WPA Project in California

10003 Supp. #1		230015		REGISTRY NO.		LETTER NO.		PRES. APP. DATE		\$2,650	
GPO 16-5263		6		04 Calif.		501 Alameda		001 Alameda		461	
STATE NUMBER		DUR. MO.		STATE		CITY		COUNTY		TYPE	
LIMITATION		2X DESCRIPTION 965 City of Alameda									
ACTION		To provide for rodent control throughout the city. For the benefit of the General Public. City and privately owned property. (Additional)									
Disapp. * WPA 6/26/37 \$2,650		* Reason for Disapproval - Violation of the non-canvass rule.									
RET. TO PROCESS 8-19-37		Reassigned SS 85111 Reg 308450									
WARRANT NUMBER		6184		100 - 100		24		L.			
DATE COMPT-GEN. APP.		FEDERAL MAN-HOURS		% FEDERAL LABOR TO TOTAL F. F.		% SPONSORS FUNDS TO TOTAL COST					
SUPPLEMENT		5		4		9		\$663		\$5,507	
1		TOTAL M-Y		FEDERAL M-Y		AVE. EMPL.		M-Y COST F. F.		TOTAL ALL FUNDS	
2		\$2,640		\$10		\$2,650		\$782		\$357	
3		LABOR		OTHER		TOTAL		LABOR		TOTAL	
4											
5		FEDERAL CONTRIBUTION						SPONSORS FUNDS			

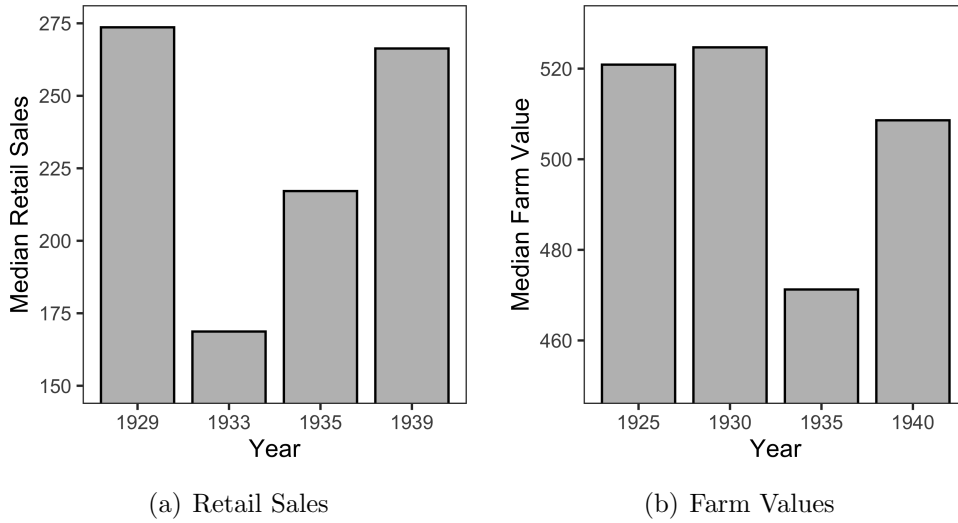
Note: <https://catalog.archives.gov/id/231990467?objectPage=1233>

Figure A9: County Bank Deposits Before and After WPA and PWA Spending



Note: Plots the median county per capita bank deposits value by year.

Figure A10: County Retail Sales and Farm Values Before and After WPA and PWA Spending



(a) Retail Sales

(b) Farm Values

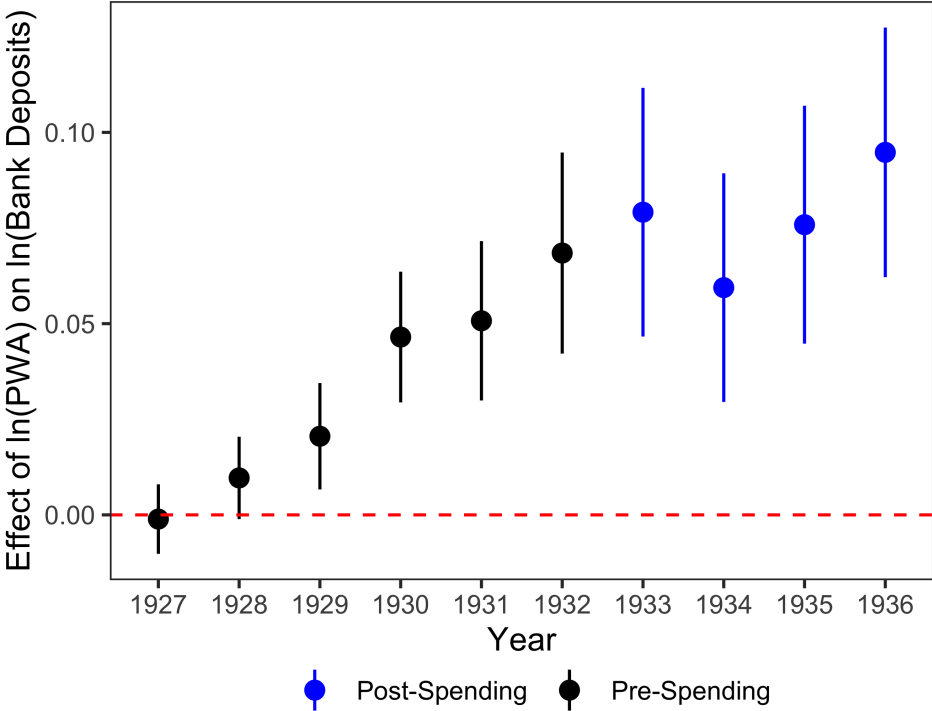
Note: A10(a), A10(b) and A9(c) plots the median county per capita retail sales and farm values, respectively, by year.

Table A14: Effect of the WPA and PWA Spending on Retail Sales and Farm Values

	<i>DV: ln(Retail Sales)</i>				<i>ln(Farm Values)</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
ln(WPA)	-0.020** (0.007)	-0.029*** (0.008)					-0.057*** (0.006)	-0.051** (0.016)				
ln(PWA)			0.036*** (0.004)	0.011* (0.005)					0.011** (0.004)	-0.001 (0.006)		
ln(PWA On-Site)					0.047*** (0.005)	0.015* (0.007)					0.015*** (0.005)	-0.000 (0.008)
County FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
State-Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
County Trends FE	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Observations	12,259	12,259	12,259	12,259	12,259	12,259	12,215	12,215	12,215	12,215	12,215	12,215
R ²	0.957	0.980	0.958	0.980	0.958	0.980	0.976	0.989	0.976	0.989	0.976	0.989

Notes: Standard errors are clustered by county. * p<0.05; ** p<0.01; *** p<0.001

Figure A11: Event Study Estimates of PWA Spending on Bank Deposits: No County Time Trends



Note: Event study estimates with 95% confidence intervals of the effects of PWA spending on bank deposits. Estimates are generated from a model including county and state-year fixed effects. Coefficients and model diagnostics are also presented in Table A5 of the Dataverse Supplementary Appendix.